Development of Oregon Background Metals Concentrations in Soil

Table 3 Regional Background Calculations for Metals

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Metal	90th Percentile	95th Percentile	Calculation Method (Percentiles)	90% UTL	90% UPL	Calculation Method	95% UPL	Calculation Method
All concentrations in mg/kg								
Portland Basin								
Antimony	0.381	0.385	Nonparametric	0.385	0.384	90% UTL 90% Coverage;90% UPL	0.557	95% UPL
Arsenic	6.728	8.062	Nonparametric	8.215	7.748	90% UTL 90% Coverage;90% UPL	8.791	95% UPL
Barium	704.90	754.70	Nonparametric	774.0	728.10	90% UTL 90% Coverage;90% UPL	791.60	95% UPL
Beryllium	2.0	2.0	Nonparametric	2.0	2.0	90% UTL 90% Coverage;90% UPL	2.0	95% UPL
Cadmium	0.565	0.616	Nonparametric KM(z)	0.618	0.572	90% UTL 90% Coverage;90% KM UPL (t)	0.627	95% KM UPL (t)
Chromium	63.050	66.50	Nonparametric	68.950	63.450	90% UTL 90% Coverage;90% UPL	75.790	95% UPL
Copper	31.810	32.990	Nonparametric	33.550	32.250	90% UTL 90% Coverage;90% UPL	33.750	95% UPL
Lead	56.220	59.650	Nonparametric	61.930	56.780	90% UTL 90% Coverage;90% UPL	79.060	95% UPL
Manganese	1383.0	1504.0	Nonparametric	1584.0	1402.0	90% UTL 90% Coverage;90% UPL	1762.0	95% UPL
Mercury	0.174	0.202	Nonparametric	0.230	0.230	90% UTL 90% Coverage;90% UPL	0.230	95% UPL
Nickel	34.40	44.430	Nonparametric	46.0	41.60	90% UTL 90% Coverage;90% UPL	47.350	95% UPL
Selenium	0.612	0.692	Nonparametric KM(z)	0.695	0.624	90% UTL 90% Coverage;90% KM UPL (t)	0.710	95% KM UPL (t)
Silver	0.653	0.788	Nonparametric KM(z)	0.792	0.672	90% UTL 90% Coverage;90% KM UPL (t)	0.818	95% KM UPL (t)
Thallium	4.962	5.107	Nonparametric KM(z)	5.149	4.992	90% UTL 90% Coverage;90% KM UPL (t)	5.156	95% KM UPL (t)
Vanadium	165.70	173.70	Nonparametric	175.10	171.30	90% UTL 90% Coverage;90% UPL	178.20	95% UPL
Zinc	124.10	154.10	Nonparametric	178.0	124.90	90% UTL 90% Coverage;90% UPL	182.90	95% UPL

Notes:

Data generated with ProUCL (Version 4.1.00), R (Version 2.15.1)

UTL = Upper threshold limit

UPL = Upper prediction limit

KM = Kaplan-Meier